

# National Exotic Forest Description

## National and regional wood supply forecasts – 1996

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In October 1996, the Ministry of Forestry published the latest *National Exotic Forest Description (NEFD)* wood supply forecasts. The Overview from this report is reprinted below.

### Overview

The potential sustainable wood supply available from New Zealand's planted production forests is forecast to rise from 17.1 million cubic metres in the year ending March 31, 1996 to almost 30 million cubic metres by 2010, a 73 per cent increase. The volume of pruned logs is forecast to rise steadily from 1.5 million cubic metres in 1996 to 4.2 million cubic metres in 2010 – an almost threefold increase. Radiata pine makes up 89 per cent of the wood supply in 1996 and is expected to increase to 93 per cent by 2010.

The forecast 73 per cent increase in annual wood harvest between 1996 and 2010 will result in a doubling of the area of forest harvested each year. The forecast harvest in 2010 will be from clearfelling 53,000 hectares of planted production forest, compared with the estimated harvested area of 26,000 hectares in the year ending March 1996.

This study uses six scenarios to show the outcome of a range of options on the long-term, sustainable supply of wood. Three clearfell age scenarios:

- base cut
- early cut
- late cut

are based on the age of harvesting and assume no new planting.

Three new planting scenarios:

- plant 40,000 ha/year
- plant 60,000 ha/year
- plant 90,000 ha/year

are based on a range of new planting levels. The primary assumptions for each of these scenarios are shown in Table 1.

Radiata pine was modelled on a non-

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Table 1: Primary Assumptions for Each Scenario

Scenario	Target clearfell age for radiata pine (years)	Area of national new planting (ha/year)
base cut	28	0
early cut	25	0
late cut	35	0
plant 40,000 ha/year	28	40,000
plant 60,000 ha/year	28	60,000
plant 90,000 ha/year	28	90,000

declining yield basis in all scenarios, and all areas clearfelled are assumed to be replanted in the year following clearfelling.

Increased growth rates from genetically improved planting stock have not been directly included in any of the scenarios. The long-term wood supply forecasts presented are considered to be conservative without the inclusion of genetic improvement.

The base cut scenario is the best forecast of future wood supply based on the existing planted forest estate. The early and late cut scenarios provide estimates of upper and lower bounds within which the future level of harvest will almost certainly fall. These clearfell age scenarios show the effect of selecting different target clearfell ages on the long-run wood supply when it is managed on a sustainable yield basis.

The new planting scenarios show the outcome of different levels of new planting on the long-run forecast wood supply. The impact of new planting does not dramatically increase the wood supply until 2020. The plant 60,000 ha/year scenario is the best estimate of future new planting.

The other two new planting scenarios provide likely estimates of upper and lower bounds.

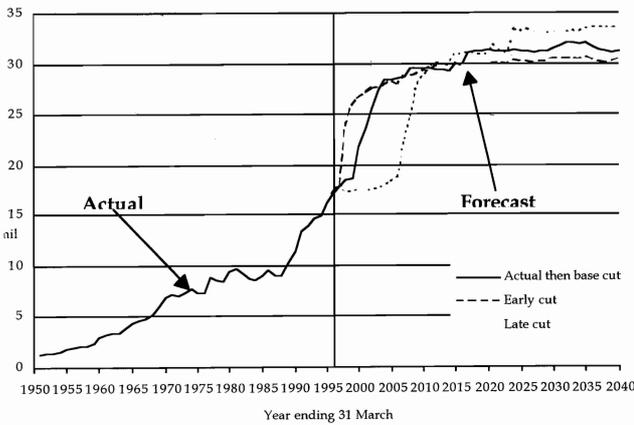
Separate forecasts were carried out for each of the 10 wood supply regions: Northland; Auckland; Central North Island; East Coast; Hawke's Bay; Southern North Island; Nelson and Marlborough; West Coast; Canterbury; and Otago and Southland. These were then aggregated to provide the national forecasts summarised in Table 2.

Graph 1 shows the wood supply forecasts in context with historical levels of planted forest harvest since 1951. This graph illustrates that the increase in the rate of harvesting that began in 1989 will continue until around 2005 in the base cut scenario. While there have been major structural changes in the ownership of planted forests during the 1990s, the primary reason for the increase in harvest was the establishment of significant areas of new planted production forests from the early 1970s to the mid-1980s. During the 15-year period 1971 to 1986 an average 45,000 hectares of new forest was established each year.

Table 2: National Wood Supply Forecasts (Average Annual Recoverable Volumes Million Cubic Metres/Year)

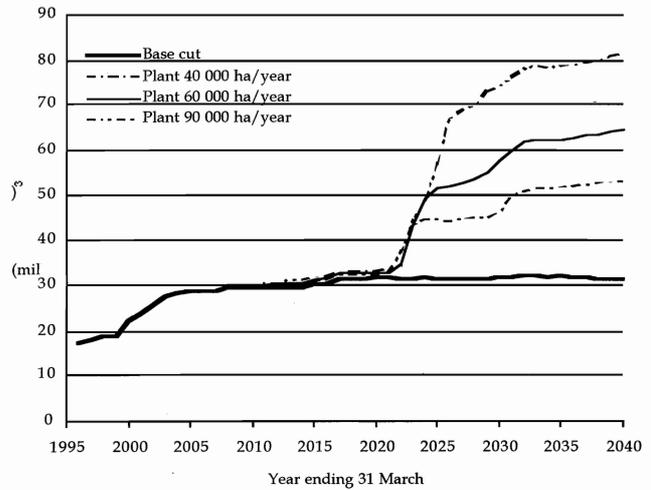
Lustrum	Base cut	Early cut	Late cut	Plant 40,000 ha/year	Plant 60,000 ha/year	Plant 90,000 ha/year
1996-00	18.8	22.3	17.4	18.8	18.8	18.8
2001-05	26.6	27.6	17.7	26.6	26.6	26.6
2006-10	29.1	28.7	24.6	29.2	29.2	29.3
2011-15	29.4	29.8	30.2	30.3	30.5	31.0
2016-20	31.0	29.9	31.0	32.0	32.4	32.9
2021-25	31.3	30.1	32.1	40.3	42.4	43.4

**Graph 1: Actual and Forecast Harvest from New Zealand's Planted Forests.**



Notes:  
 1. The vertical line indicates the beginning of the forecasts (1996).  
 2. Source of actual planted forest volumes: New Zealand Forestry Statistics 1995, Ministry of Forestry, 1996. Table A11, pp 16.

**Graph 2: Forecast Wood Supply from New Zealand's Forests Assuming Constant New Planting**



The forecast for each of the clearfell age scenarios rises steeply from 1997 to 2010. Each of these scenarios reaches a plateau where the annual recoverable volume becomes reasonably constant indefinitely. Table 3 summarises these levels and the years they are reached.

The early cut forecast demonstrates a

sharp rise in wood supply post-1997, reaching a plateau around 2012. However, this plateau stabilises at a level one to two million cubic metres lower than the other scenarios. It is also important to recognise that the physical properties of radiata pine logs from 25-year-old stands are different from logs produced from

older stands.

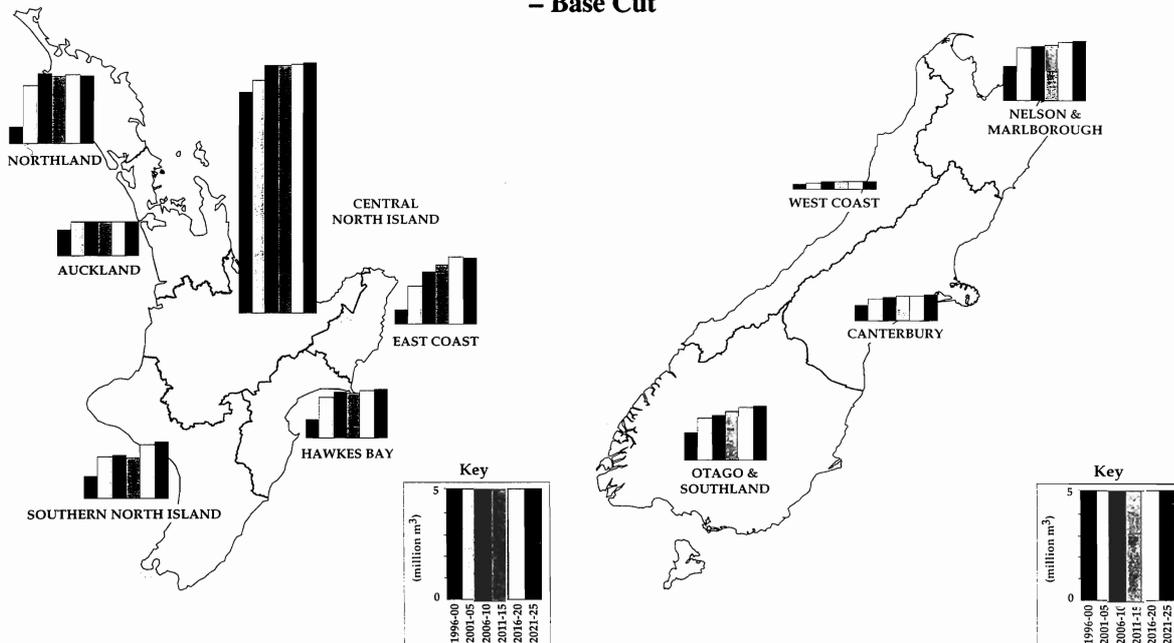
The wood supply forecast from the new planting scenarios does not reach a steady state plateau, since new areas of forest are continuously established over the forecast horizon (see Graph 2).

The Central North Island is the dominant wood supply region, producing 59 per cent of the forecast national wood supply in 1996. While still remaining dominant, the future supply of wood produced in the Central North Island is relatively constant. In regions with extensive areas of young planted forests, such as Northland and the East Coast, there will be large increases in wood supply as forests in these regions begin to mature. The regional forecasts are summarised in Table 4 and Graph 3.

**Table 3: Maximum Recoverable Volumes Forecast for the Clearfell Age Scenarios**

Scenario	Target age of radiata pine (years)	Maximum recoverable volume (million m <sup>3</sup> /yr)	Year available from
Base cut	28	31.0 - 32.1	2017 on
Early cut	25	29.7 - 30.5	2012 on
Late cut	35	33.1 - 33.6	2024 on

**Graph 3: Regional Wood Supply Forecasts (Average Annual Recoverable Volumes Million Cubic Metres/Year) – Base Cut**



**Table 4: Regional Wood Supply Forecasts (Average Annual Recoverable Volumes Million Cubic Metres/Year) - Base Cut**

Wood supply region	1996-00	2001-05	2006-10	2011-15	2016-20	2021-25
Northland	0.8	2.7	3.3	3.2	3.2	3.2
Auckland	1.2	1.6	1.6	1.6	1.6	1.6
Central North Island	10.2	10.9	11.5	11.5	11.6	11.6
East Coast	0.7	1.8	2.5	2.7	3.1	3.1
Hawke's Bay	0.9	1.9	2.1	2.1	2.2	2.3
Southern North Island	1.1	2.0	2.0	1.9	2.5	2.6
Nelson and Marlborough	1.6	2.4	2.5	2.6	2.7	2.8
West Coast	0.3	0.3	0.3	0.4	0.4	0.4
Canterbury	0.7	1.0	1.1	1.1	1.2	1.2
Otago and Southland	1.3	2.0	2.2	2.3	2.5	2.5
<b>New Zealand total</b>	<b>18.8</b>	<b>26.6</b>	<b>29.1</b>	<b>29.4</b>	<b>31.0</b>	<b>31.3</b>

It should be recognised that the harvest from New Zealand's planted forests is not regulated by the artificial regional boundaries used in this study. Planted forests are usually managed to maximise the benefits to the enterprise that owns them.

The forecasts in this report are essentially resource-based forecasts of the level of harvest attainable given the assumptions on yields, areas and harvesting constraints. This is not a prediction of how companies will manage the cut from their forests, nor is it a prescription for how their cut should be managed.

*For further information or a copy of the report please contact Paul Lane, Ministry of Forestry, Wellington.*

## Ex-CHH executive moves to Ministry of Forestry

A recent senior management appointment in the Ministry of Forestry reflects the organisation's desire to develop and enhance its business relationships throughout the forestry sector, says the Ministry's Chief Executive, Dr John Valentine.

Dr Valentine has announced the appointment of Mr Murray McAlonan to the position of General Manager, Forestry Development.

The new appointment, said Dr Valentine, signals a significant opportunity for the Ministry.

"Mr McAlonan has over 30 years' experience in New Zealand's forestry sector. During that time he has gained substantial knowledge, reputation and experience in his field," said Dr Valentine.

"His industry experience will be invaluable in helping us to achieve the best possible relationship with forest industry participants. In this way we in turn can do our job better - from working across the sector to help realise the high expectations for forestry through to our operational work such as protecting our forests from pests and diseases."

Mr McAlonan sees his role as building on the work already being done by the Ministry.

### An Interface

"Our job is essentially to create a climate where the industry can flourish and make its best contribution to New Zealand, by acting as an interface between industry and Government," said Mr McAlonan. "We provide industry with information that enables them to make sound, sustainable business decisions. In turn, we provide Government with advice that is based on the best possible information from industry."



Murray McAlonan.

"I'm looking forward to helping bring the industry perspective into the Ministry,

while following my interest in the process of government."

Mr McAlonan's most recent management role was General Manager Planning, Wood Products for Carter Holt Harvey Ltd. The Wood Products' business units include Timber and Panels and Plywood, together with 36 "Carters" building supply outlets. Mr McAlonan's previous senior management positions included General Manager Timber for Carter Holt Harvey Ltd, Manager Kinleith Forest Region for Carter Holt Harvey Forests and Manager Forestry Department for New Zealand Forest Products Ltd.

He is also a past President of the New Zealand Forest Owners' Association and a former councillor with the New Zealand Forest Industries Council.

Mr McAlonan will be based at the Ministry's Auckland office. This is a new move for the organisation, and reflects the fact that most major forestry companies are based in Auckland.

## Planning Tribunal becomes Environment Court

The Resource Management Amendment Bill (No. 4) was recently passed by Parliament and made a number of changes to the Planning Tribunal, including renaming it the Environment Court. Among other things, the Bill also:

- increases the number of judges that can be appointed from five to eight;
- includes alternate dispute resolution processes as a skill for commissioners (lay members);

- deletes the maximum number of commissioners;
- clarifies the powers of the Environment Court to being those of the District Court;
- widens the powers of a commissioner;
- gives any person representing some relevant aspect of the public interest status before the Court;
- gives protection for the legal status of community groups if they incorporate to protect individuals from costs.